## **WEST Search History**



DATE: Tuesday, June 29, 2004

Hide?	Set Name	<u>e Query</u>	Hit Count
	DB = US	PT,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR	
	L14	liposome adj10 (isoelectric adj1 point)	9
	L13	L12 and dotap	1
	L12	liposome adj10 (cholesterol adj1 hemisuccinate)	28
	L11	liposome adj5 (cholesterol adj1 hemisuccinate)	20
	L10	L7 and dotap	5
	L9	(liposome) adj5 chems adj5 dotap\$	0
	L8	(liposome) adj5 chems adj5 dotap	0
	L7	(liposome) adj5 chems	147
	L6	(liposome) adj5 (both) adj5 positive\$ adj5 negative\$	$\mathbf{S} = 1$
	L5	liposome adj5 positive\$ adj5 negative\$	250
	L4	liposome adj5 isoelectric	5
	L3	liposome adj5 amphoteric	9
	L2	liposome adj3 amphoteric	8
	L1	liposome adj3 amphoteric\$	57

END OF SEARCH HISTORY



L11: Entry 2 of 20

File: USPT

Jul 1, 2003

DOCUMENT-IDENTIFIER: US 6585975 B1

TITLE: Use of Salmonella vectors for vaccination against helicobacter infection

Detailed Description Text (20):

Useful liposomes for the purposes of the present invention can be selected, for example, from pH-sensitive <u>liposomes</u>, such as those formed by mixing cholesterol hemisuccinate (CHEMS) and dioleyl phosphatidyl ethanolamine (DOPE); liposomes containing cationic lipids recognized for their fusiogenic properties, such as 3-beta-(N-(N',N'-dimethylamino-ethane)carbamoyl)cholesterol (DC-chol) and its equivalents, which are described in U.S. Pat. No. 5,283,185 and WO 96/14831; dimethyldioctadecylammonium bromide (DDAB) and the BAY compounds described in EP 91645 and EP 206 037, for example, Bay R1005 (N-(2-deoxy-2-L-leucylamino-beta-D-glucopyranosyl)-N-octa-decyldodecanoyla mide acetate; and liposomes containing MTP-PE, a lipophilic derivative of MDP (muramidyldipeptide). These liposomes are useful as adjuvants with all of the antigens described herein.

## Generate Collection Print

L12: Entry 17 of 28

File: USPT

Apr 12, 1994

DOCUMENT-IDENTIFIER: US 5302389 A

TITLE: Method for treating UV-induced suppression of contact hypersensitivity by administration of T4 endonuclease

Detailed Description Text (10):

T4N5 liposomes were prepared by encapsulating purified, recombinant T4 endonuclease V in liposomes composed of phosphatidylcholine, phosphatidylethanolamine, oleic acid, and cholesterol hemisuccinate (2:2:1:5 molar ratio) by the detergent dialysis method (14). The concentration of the entrapped enzyme was determined by ELISA (16) and is expressed as mg T4 endonuclease V per ml of vehicle. The encapsulated activity was assayed by nicking of UV-supercoiled DNA with and without dissolution of the liposomes (16). Control preparations of liposomes contained boiled (enzymatically inactive) T4 endonuclease V (14). The liposomes were mixed into a 1% hydrogel (Hypan SS201, Kingston Hydrogels, Dayton, N.J.) made with phosphate-buffered saline and applied to shaved mouse skin with a moist cotton swab. Immediately after UV irradiation, 0.25 ml of liposome suspension containing 0.5 mg/ml T4 endonuclease V was applied to the UV-irradiated skin of each mouse.

## Generate Collection . Print

L12: Entry 20 of 28

File: USPT

Oct 6, 1992

DOCUMENT-IDENTIFIER: US 5152999 A

TITLE: Liposome preparation

Brief Summary Text (7):

On the other hand, in Adriamycin-entrapped <u>liposome preparations</u>, it is known to use sterols having a negative charge such as cholesterol sulfate and cholesterol <u>hemisuccinate</u> as the liposome membrane constituent (International Patent Application No. PCT/US88/01573 : International Publication No. W088/09168).

## **Hit List**

Clear Generate Collection Print Fwd Refs Bkwd Refs Bkwd Refs

Search Results - Record(s) 1 through 28 of 28 returned.

☐ 1. Document ID: US 6733776 B1

Using default format because multiple data bases are involved.

L12: Entry 1 of 28

File: USPT

May 11, 2004

US-PAT-NO: 6733776

DOCUMENT-IDENTIFIER: US 6733776 B1

TITLE: Method for promoting hair growth

DATE-ISSUED: May 11, 2004

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Li; Lingna

Lishko; Valeryi

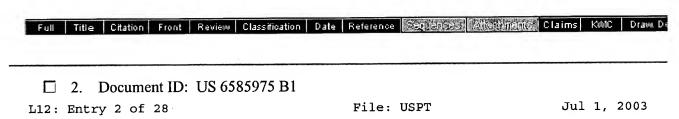
La Jolla

Shaker Hts.

(

CA OH

US-CL-CURRENT: 424/450



US-PAT-NO: 6585975

DOCUMENT-IDENTIFIER: US 6585975 B1

TITLE: Use of Salmonella vectors for vaccination against helicobacter infection

DATE-ISSUED: July 1, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Kleanthous; Harold Westford MA

Londono-Arcila; Patricia London GB Freeman; Donna Cambridge GB

Lee; Cynthia K. Needham MA Monath; Thomas P. Harvard MA

US-CL-CURRENT: 424/200.1; 424/234.1, 435/6, 435/69.1, 514/44, 536/23.5

Full Title Citation Front Review Classification Date Reference Sequences Attachine N Claims KWC Draw. Do

☐ 3. Document ID: US 6436435 B1

L12: Entry 3 of 28

File: USPT

Aug 20, 2002

US-PAT-NO: 6436435

DOCUMENT-IDENTIFIER: US 6436435 B1

TITLE: Liposome formulation of 5 .beta. steroids

DATE-ISSUED: August 20, 2002

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Rubinfeld; Joseph

Danville

CA

Fineman; Elliott L.

Kensington

CA

US-CL-CURRENT: 424/450; 424/423



☐ 4. Document ID: US 6352716 B1

L12: Entry 4 of 28

File: USPT

NJ

Mar 5, 2002

US-PAT-NO: 6352716

DOCUMENT-IDENTIFIER: US 6352716 B1

TITLE: Steroidal liposomes

DATE-ISSUED: March 5, 2002

INVENTOR-INFORMATION:

Swenson; Christine E.

<u>514/78, 514/887, 514/967</u>

NAME CITY STATE ZIP CODE COUNTRY

Janoff; Andrew S. Yardley PA
Popescu; Mircea C. Plainsboro NJ
Weiner; Alan L. Lawrenceville NJ
Bolcsak; Lois E. Lawrenceville NJ
Tremblay; Paul A. Hamilton NJ

US-CL-CURRENT: 424/450; 264/4.1, 264/4.6, 424/1.21, 424/9.1, 436/829, 514/182,

Princeton Junction

Full Title Citation Front Review Classification Date Reference Seguences Attachments Claims KMC Draw. De

☐ 5. Document ID: US 6261596 B1

L12: Entry 5 of 28

File: USPT

Jul 17, 2001

US-PAT-NO: 6261596

DOCUMENT-IDENTIFIER: US 6261596 B1

TITLE: Method to provide for production of hair coloring pigments in hair follicles

DATE-ISSUED: July 17, 2001

INVENTOR-INFORMATION:

NAME

CITY

STATE ZIP CODE

COUNTRY

Li; Lingna

La Jolla

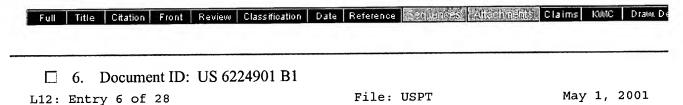
CA

Lishko; Valeryi

Shaker Hts

ОН

US-CL-CURRENT: 424/450; 424/70.1, 424/70.6



US-PAT-NO: 6224901

DOCUMENT-IDENTIFIER: US 6224901 B1

\*\* See image for Certificate of Correction \*\*

TITLE: Method for delivering beneficial compositions to hair follicles

DATE-ISSUED: May 1, 2001

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Li; Lingna

La Jolla

CA

Lishko; Valervi

Shaker Hts.

OH

US-CL-CURRENT: 424/450; 424/401, 424/70.1, 424/70.6

Full	Title Citation	Front	Review	Classification	Date	Reference	(Schlances (Altachin	Anto Claims	KWIC	Draw, De
		***************************************								
	7. Docum	ent ID:	US 60	90406 A						
L12: 1	Entry 7 of	E 28				File:	JSPT	Jul	18,	2000

US-PAT-NO: 6090406

DOCUMENT-IDENTIFIER: US 6090406 A

TITLE: Potentiation of immune responses with liposomal adjuvants

DATE-ISSUED: July 18, 2000

INVENTOR-INFORMATION:

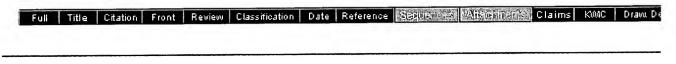
NAME CITY STATE ZIP CODE COUNTRY

Popescu; Mircea C. Plainsboro NJ
Weiner; Alan L. Lawrenceville NJ
Recine; Marie S. Hamilton Township NJ

Janoff; Andrew S. Yardley PA

Estis; Leonard Upton MA
Keyes; Lynn D. Upton MA
Alving; Carl R. Bethesda MD

US-CL-CURRENT: <u>424/450</u>; <u>264/4.1</u>, <u>424/196.11</u>, <u>424/204.1</u>, <u>424/206.1</u>, <u>424/234.1</u>, 424/812



☐ 8. Document ID: US 6045821 A

L12: Entry 8 of 28 File: USPT

Apr 4, 2000

US-PAT-NO: 6045821

DOCUMENT-IDENTIFIER: US 6045821 A

TITLE: Liposomal agents

DATE-ISSUED: April 4, 2000

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Garrity; Martha Wayne PA Varadarajan; John Wayne PA Watson; Alan David Wayne PA

US-CL-CURRENT:  $\underline{424}/\underline{450}$ ;  $\underline{424}/\underline{1.21}$ ,  $\underline{424}/\underline{9.3}$ ,  $\underline{424}/\underline{9.321}$ ,  $\underline{424}/\underline{9.361}$ ,  $\underline{424}/\underline{9.42}$ ,  $\underline{424}/\underline{9.51}$ 



☐ 9. Document ID: US 6010681 A

L12: Entry 9 of 28 File: USPT Jan 4, 2000

US-PAT-NO: 6010681

DOCUMENT-IDENTIFIER: US 6010681 A

TITLE: Biodegradable blood-pool contrast agents

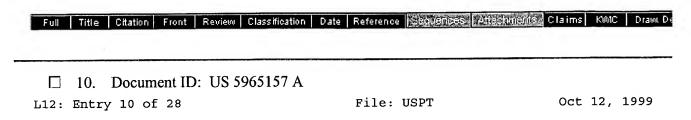
DATE-ISSUED: January 4, 2000

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Margerum; Larry Wayne PA
Campion; Brian Solano Beach CA
Fellmann; Jere Douglas Livermore CA
Garrity; Martha San Clemente CA
Varadarajan; John Sunnyvale CA

US-CL-CURRENT: 424/9.35; 424/9.36, 424/9.364, 424/9.42



US-PAT-NO: 5965157

DOCUMENT-IDENTIFIER: US 5965157 A

TITLE: Method to provide for production of hair coloring pigments in hair follicles

DATE-ISSUED: October 12, 1999

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Li; Lingna La Jolla CA Lishko; Valeryi Shaker Hts. OH

US-CL-CURRENT: <u>424/450</u>; <u>424/70.1</u>, <u>424/70.6</u>



#### ☐ 11. Document ID: US 5916588 A

L12: Entry 11 of 28 File: USPT Jun 29, 1999

US-PAT-NO: 5916588

DOCUMENT-IDENTIFIER: US 5916588 A

TITLE: Peptide-containing liposomes, immunogenic liposomes and methods of preparation and use

DATE-ISSUED: June 29, 1999

INVENTOR-INFORMATION:

ZIP CODE COUNTRY STATE NAME CITY NJ Popescu; Mircea C. Plainsboro NJ Weiner; Alan L. Lawrenceville Recine; Marie S. Hamilton Township NJ Janoff; Andrew S. Yardley PA MA Upton Estis; Leonard

Keyes; Lynn D.

Upton

MA

Alving; Carl R.

Bethesda

MD

US-CL-CURRENT: <u>424/450</u>; <u>424/184.1</u>

Full Title Citation Front Review Classification Date Reference Scripences Attachments Claims KMC Draw De

☐ 12. Document ID: US 5914126 A

L12: Entry 12 of 28

File: USPT

Jun 22, 1999

US-PAT-NO: 5914126

DOCUMENT-IDENTIFIER: US 5914126 A

TITLE: Methods to deliver macromolecules to hair follicles

DATE-ISSUED: June 22, 1999

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Li; Lingna

La Jolla

CA

Lishko; Valeryi

Shaker Hts.

OH

US-CL-CURRENT: 424/450; 424/70.1, 514/2, 514/44

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | 4ttgchments | Claims | KMC | Draw Do

☐ 13. Document ID: US 5897873 A

L12: Entry 13 of 28

File: USPT

Apr 27, 1999

US-PAT-NO: 5897873

DOCUMENT-IDENTIFIER: US 5897873 A

TITLE: Affinity associated vaccine

DATE-ISSUED: April 27, 1999

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Popescu; Mircea

Plainsboro

NJ

US-CL-CURRENT: 424/450; 424/204.1, 424/206.1, 424/208.1

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KMC Draw. De

☐ 14. Document ID: US 5753263 A

L12: Entry 14 of 28

File: USPT

May 19, 1998

US-PAT-NO: 5753263

DOCUMENT-IDENTIFIER: US 5753263 A

TITLE: Method to deliver compositions conferring resistance to alopecia to hair

follicles

DATE-ISSUED: May 19, 1998

INVENTOR-INFORMATION:

NAME

CITY

STATE ZIP CODE

COUNTRY

Lishko; Valeryi

Shaker Hts.

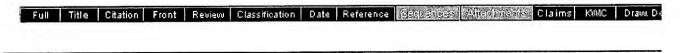
OH

Li; Lingna

La Jolla

CA

US-CL-CURRENT: 424/450; 424/70.1, 514/2, 514/44



☐ 15. Document ID: US 5614214 A

L12: Entry 15 of 28

File: USPT

Mar 25, 1997

US-PAT-NO: 5614214

DOCUMENT-IDENTIFIER: US 5614214 A

TITLE: Reduction of liposome-induced adverse physiological reactions

DATE-ISSUED: March 25, 1997

INVENTOR-INFORMATION:

NAME

CITY

STATE ZIP CODE

COUNTRY

Ahl; Patrick L.

Princeton

Yardley

ŊJ

Bhatia; Suresh K.

Plainsboro

NJ NJ

Minchey; Sharma R. Janoff; Andrew S.

Monmouth Junction

PA

US-CL-CURRENT: 424/450; 428/402.2

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KWC Draw. De

110 Enter 16 of 20

☐ 16. Document ID: US 5364631 A

L12: Entry 16 of 28

File: USPT

Nov 15, 1994

US-PAT-NO: 5364631

DOCUMENT-IDENTIFIER: US 5364631 A

TITLE: Tocopherol-based pharmaceutical systems

DATE-ISSUED: November 15, 1994

INVENTOR-INFORMATION:

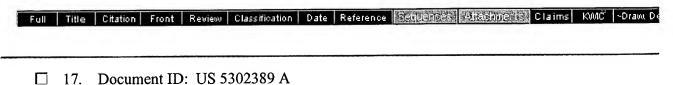
STATE ZIP CODE COUNTRY CITY NAME

PA Janoff; Andrew S. Yardley

Monmouth Junction NJ Boni; Lawrence Minchey; Sharma R. Monmouth Junction NJ NJ Lawrenceville Bolcsak; Lois E.

Weiss; Steven J. Belle Mead NJ

US-CL-CURRENT: 424/450; 264/4.1, 264/4.6, 428/402.2



L12: Entry 17 of 28

File: USPT Apr 12, 1994

US-PAT-NO: 5302389

DOCUMENT-IDENTIFIER: US 5302389 A

TITLE: Method for treating UV-induced suppression of contact hypersensitivity by

administration of T4 endonuclease

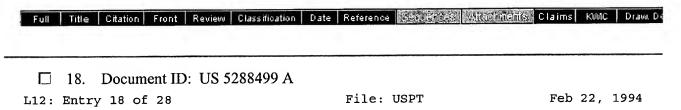
DATE-ISSUED: April 12, 1994

**INVENTOR-INFORMATION:** 

COUNTRY STATE ZIP CODE NAME CITY

TXKingwood Kripke; Margaret L. NY Yarosh; Daniel B. Merrick

US-CL-CURRENT: 424/94.6; 424/450, 424/94.3



US-PAT-NO: 5288499

DOCUMENT-IDENTIFIER: US 5288499 A

TITLE: Sterodial liposomes

DATE-ISSUED: February 22, 1994

INVENTOR - INFORMATION:

CITY STATE ZIP CODE COUNTRY NAME

Janoff; Andrew S. Yardley Popescu; Mircea C. Plainsboro IJ

Weiner; Alan L. Lawrenceville NJ

PA

Bolcsak; Lois E.

Lawrenceville

NJ

Tremblay; Paul A.

Hamilton

NJ

Swenson; Christine E.

Princeton Junction

NJ

US-CL-CURRENT: 424/450; 264/4.1, 264/4.6, 424/1.21, 424/9.4, 428/402.2, 436/829, 514/167, 514/78, 514/887, 514/967

Full Title Citation Front Review Classification Date Reference Scott-ness Attachnesis Claims KMC Dr.	Full	Title	Citation	Front	Review	Classification	Date	Reference	Stoppings Aire	iiidiis (	laims	KWIC	Drawu
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☐ 19. Document ID: US 5231112 A

L12: Entry 19 of 28

File: USPT

Jul 27, 1993

Oct 6, 1992

US-PAT-NO: 5231112

DOCUMENT-IDENTIFIER: US 5231112 A

TITLE: Compositions containing tris salt of cholesterol hemisuccinate and

antifungal

DATE-ISSUED: July 27, 1993

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Janoff; Andrew S. Yardley PA
Popescu; Mircea C. Plainsboro NJ
Weiner; Alan L. Lawrenceville NJ
Bolcsak; Lois E. Lawrenceville NJ

Tremblay; Paul A. Hamilton NJ Swenson; Christine E. Princeton Junction NJ

US-CL-CURRENT: 514/401; 424/DIG.15, 514/887, 514/967

# Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KMC Draw De

File: USPT

US-PAT-NO: 5152999

L12: Entry 20 of 28

DOCUMENT-IDENTIFIER: US 5152999 A

TITLE: Liposome preparation

DATE-ISSUED: October 6, 1992

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Tokunaga; Yuji Sanda JP

Yamamoto; Takao Osaka JP

Page 10 of 15

Record List Display

Hata; Takehisa

Nagaokakyo

JΡ

US-CL-CURRENT: 424/450; 552/544, 562/563, 562/576

Full	Title	Citation	Front	Review	Classification	Date	Reference	经净价值 100	Aistontic	Claims	KWIC	Draw De
	<b>^1</b>	Dagum	ont II	). TIC 1	891208 A			***************************************				
ii	21.	Docum	ieni il	). US 4	091200 A							
L12:	Entr	y 21 of	28				File:	USPT		Jan	2,	1990

US-PAT-NO: 4891208

DOCUMENT-IDENTIFIER: US 4891208 A

TITLE: Steroidal liposomes

DATE-ISSUED: January 2, 1990

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP	CODE	COUNTRY
Janoff; Andrew S.	Yardley	PA			
Popescu; Mircea C.	Plainsboro	NJ			
Weiner; Alan L.	Plainsboro	NJ			
Bolscak; Lois E.	Lawrenceville	NJ			
Tremblay; Paul A.	Hamilton	NJ			
Swenson; Christine E.	Plainsboro	NJ			

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sadransas Attaspina	nis Claims	KWIC	Draw, D
	22.	Docum	nent ID	): US 4	721612 A						
L12:	Entr	y 22 of	£ 28				File:	USPT	Jan	26,	1988

US-PAT-NO: 4721612

DOCUMENT-IDENTIFIER: US 4721612 A

TITLE: Steroidal liposomes

DATE-ISSUED: January 26, 1988

INVENTOR-INFORMATION:

INVENTOR INFORMATION.				
NAME	CITY	STATE	ZIP CODE	COUNTRY
Janoff; Andrew S.	Yardley	PA		
Popescu; Mircea C.	Plainsboro	IJ		
Weiner; Alan L.	Plainsboro	NJ		
Bolcsak; Lois E.	Lawrenceville	NJ		
Tremblay; Paul S.	Hamilton	NJ		

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Record List Display

US-CL-CURRENT: 424/1.21; 264/4.1, 264/4.6, 424/450, 424/9.4, 424/9.6, 428/402.2, 436/52, 436/829, 514/167, 514/78, 514/887, 514/967

Full Title Citation Front Review Classification Date Reference Scottences Attachments Claims KMC Draw De

☐ 23. Document ID: US 20020192274 A1, WO 200276427 A2

L12: Entry 23 of 28

File: DWPI

Dec 19, 2002

DERWENT-ACC-NO: 2002-750583

DERWENT-WEEK: 200303

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TITLE: Composition useful for the treatment of macrophage associated diseases comprises a liposome having a lipid component containing phosphatidyl ethanolamine, cholesteryl hemisuccinate and cholesterol component

INVENTOR: PONNAPPA, B C

PRIORITY-DATA: 2001US-278605P (March 26, 2001), 2002US-0106142 (March 25, 2002)

PATENT-FAMILY:

 PUB-NO
 PUB-DATE
 LANGUAGE
 PAGES
 MAIN-IPC

 US 20020192274 A1
 December 19, 2002
 000
 A61K009/127

 WO 200276427 A2
 October 3, 2002
 E
 040
 A61K009/127

INT-CL (IPC): A61 K 9/127; A61 K 48/00

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KMC Draw. De

☐ 24. Document ID: AU 2002244726 A1, WO 200266490 A2, EP 1363933 A2

L12: Entry 24 of 28

File: DWPI

Sep 4, 2002

DERWENT-ACC-NO: 2002-657652

DERWENT-WEEK: 200427

COPYRIGHT 2004 DERWENT INFORMATION LTD

TITLE: New sterol derivatives useful as components of liposomes for e.g. production of diagnostic release systems, for transport and release of active substances, as depot formulations, and as vectors for cell transfection

INVENTOR: BEHRENS, A; ENDERT, G; FANKHANEL, S; PANZNER, S; FANKHAENEL, S

PRIORITY-DATA: 2001DE-1009898 (February 21, 2001)

PATENT-FAMILY:

LANGUAGE PAGES MAIN-IPC PUB-DATE PUB-NO September 4, 2002 000 C07J043/00 AU 2002244726 A1 C07J043/00 August 29, 2002 G 037 WO 200266490 A2 G 000 C07J043/00 EP 1363933 A2 November 26, 2003

INT-CL (IPC): A61 K 9/127; A61 K 31/58; C07 J 43/00

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KMC Draw De

☐ 25. Document ID: WO 9814170 A1, AU 9745071 A

L12: Entry 25 of 28

File: DWPI

Apr 9, 1998

DERWENT-ACC-NO: 1998-239839

DERWENT-WEEK: 199821

COPYRIGHT 2004 DERWENT INFORMATION LTD

TITLE: Composition for treatment of cancerous B cell disorders - comprises lipid-

based carrier and tumour idiotype derived from cancerous B cells

INVENTOR: AGUS, D B; AHMAD, I ; JANOFF, A S ; MAYHEW, E ; ZELENETZ, A D

PRIORITY-DATA: 1996US-027201P (September 30, 1996)

PATENT-FAMILY:

LANGUAGE PAGES MAIN-IPC PUB-NO PUB-DATE 023 A61K009/127 April 9, 1998 WO 9814170 A1 000 A61K009/127 April 24, 1998 AU 9745071 A

INT-CL (IPC): A61 K 9/127; A61 K 39/395

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KMC Draw De

26. Document ID: WO 9222249 A1, AU 9221496 A, US 5209720 A, JP 06508277 W, EP 660687 A1, AU 661701 B, EP 660687 A4, EP 660687 B1, DE 69227468 E, ES 2124733 T3, JP 3053217 B2

L12: Entry 26 of 28

File: DWPI

Dec 23, 1992

DERWENT-ACC-NO: 1993-017861

DERWENT-WEEK: 200403

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TITLE: Heat treating biological tissue and fluids - using hyperthermia potentiator

comprising gas filled liposome(s) and ultrasound treatment

INVENTOR: UNGER, E C

PRIORITY-DATA: 1991US-0716793 (June 18, 1991), 1989US-0455707 (December 22, 1989),

1990US-0569828 (August 20, 1990), 1990US-0581027 (September 11, 1990)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 9222249 A1	December 23, 1992	E	031	A61B008/14
AU 9221496 A	January 12, 1993		000	
US 5209720 A	May 11, 1993		012	A61B017/20
JP 06508277 W	September 22, 1994		011	A61F007/00
EP 660687 A1	July 5, 1995	E	000	

AU 661701 B	August 3, 1995		000	A61B007/00
EP 660687 A4	June 26, 1996		000	
EP 660687 B1	October 28, 1998	E	000	A61B008/14
DE 69227468 E	December 3, 1998		000	A61B008/14
ES 2124733 T3	February 16, 1999		000	A61B008/14
JP 3053217 B2	June 19, 2000		011	A61F007/00

INT-CL (IPC): A61 B  $\frac{7}{00}$ ; A61 B  $\frac{8}{14}$ ; A61 B  $\frac{17}{20}$ ; A61 F  $\frac{7}{00}$ ; A61 K  $\frac{9}{127}$ ; A61 K  $\frac{41}{00}$ ; B01 J  $\frac{13}{02}$ 

Full	Title	Citation	Front	Review	Classification	Date	Reference	Seguence: Alfa	dintant	Claims	KWIC	Draw D
***************************************		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,										

27. Document ID: EP 356340 A, EP 356340 B1, DE 68919173 E, ES 2063154 13, CA 1334165 C, US 5897873 A

L12: Entry 27 of 28

File: DWPI

Feb 28, 1990

DERWENT-ACC-NO: 1990-061014

DERWENT-WEEK: 200238

COPYRIGHT 2004 DERWENT INFORMATION LTD

TITLE: Affinity associated antigen for use in vaccines - comprising liposome in affinity association with externally disposed antigen opt. with adjuvant

INVENTOR: POPESCU, M C; ALVING, C L ; ESTIS, L F ; JANOFF, A S ; KEYES, L D ; RECINE, M S ; POPESCU, M

PRIORITY-DATA: 1989US-0397758 (August 23, 1989), 1988US-0236701 (August 25, 1988), 1988US-0236702 (August 25, 1988), 1989US-0397777 (August 23, 1989), 1984US-0599691 (April 12, 1984), 1985US-0721630 (April 10, 1985), 1985US-0773429 (September 10, 1985), 1989US-0425727 (October 23, 1989), 1991US-0758587 (September 12, 1991), 1993US-0108822 (August 18, 1993), 1993US-0146463 (November 2, 1993), 1995US-0392676 (February 23, 1995)

#### PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
EP 356340 A	February 28, 1990	E	011	
EP 356340 B1	November 2, 1994	E	016	A61K009/50
DE 68919173 E	December 8, 1994		000	A61K009/50
ES 2063154 T3	January 1, 1995		000	A61K009/50
CA 1334165 C	January 31, 1995		000	A61K039/00
US 5897873 A	April 13, 1999		000	A61K009/127

INT-CL (IPC): A61K 9/127; A61K 9/50; A61K 39/00; A61K 39/14; A61K 39/145

Full Title Citation Front Review Classification Date Reference Securicas Attachments Claims KMC	Drawu	KWIC	Claims	Sequences Attachments	Reference	Date	Classification	Review	Front	Citation	Title	Full
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28. Document ID: MX 207955 B, WO 8504578 A, EP 185680 A, ZA 8507576 A, JP 61501921 W, DK 8505735 A, JP 62502464 W, US 4721612 A, CA 1262093 A, KR 8901882 B, IL 74912 A, EP 185680 B1, DE 3586242 G, NO 173213 B, FI 92463 B, JP 07100367 A, IE 66709

#### B, JP 96032623 B2, JP 08208457 A, JP 2706642 B2

L12: Entry 28 of 28

File: DWPI

May 27, 2002

DERWENT-ACC-NO: 1985-276081

DERWENT-WEEK: 200365

COPYRIGHT 2004 DERWENT INFORMATION LTD

TITLE: Steroidal liposome of closed bi-layers - comprise salt form of organic acid deriv. of sterol for entrapping bioactive agent for therapeutic or analytical use

INVENTOR: BOLCSAK, E L; JANOFF, W A; POPESCU, C M; TREMBLAY, A P; WEINER, L A; BOLCSAK, L E; JANOFF, A W; POPESCU, M C; TREMBLAY, P A; WEINER, A L; JANOFF, A S; SWENSON, C E; TREMBLAY, P S; SWENSON, C E; POPESCU, M

PRIORITY-DATA: 1985US-0721630 (April 10, 1985), 1984US-0599691 (April 12, 1984), 1985ZA-0007576 (October 1, 1985), 1993JP-0268664 (April 11, 1985)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
MX 207955 B	May 27, 2002		000	A61K047/28
WO 8504578 A	October 24, 1985	E	077	
EP 185680 A	July 2, 1986	E	000	
ZA 8507576 A	April 3, 1986		000	
JP 61501921 W	September 4, 1986		000	
DK 8505735 A	December 11, 1985		000	
JP 62502464 W	September 24, 1987		000	
US 4721612 A	January 26, 1988		000	
CA 1262093 A	October 3, 1989		000	
KR 8901882 B	May 29, 1989		000	
<u>IL 74912 A</u>	April 29, 1990		000	
EP 185680 B1	June 17, 1992	Ε .	039	A61K009/52
DE 3586242 G	July 23, 1992		000	A61K009/52
NO 173213 B	August 9, 1993		000	A61K009/127
FI 92463 B	August 15, 1994		000	A61K009/127
JP 07100367 A	April 18, 1995		023	B01J013/02
IE 66709 B	January 24, 1996		000	A61K009/127
JP 96032623 B2	March 29, 1996		026	A61K009/127
JP 08208457 A	August 13, 1996		022	A61K009/127
JP 2706642 B2	January 28, 1998		022	A61K009/127

INT-CL (IPC): A47K 47/00; A61J 3/07; A61K 9/10; A61K 9/127; A61K 9/52; A61K 31/56; A61K 31/59; A61K 37/36; A61K 39/44; A61K 43/00; A61K 47/00; A61K 47/28; A61K 49/00; B01J 13/02; C07J 0/00; G01N 31/00; G01N 33/16; G01N 33/48; G01N 33/52; G01N 33/544

Clear Generate Collection Find Refs Bkwd Refs Generate OACS	Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences Macin	ents Claims	KMC Draw, Dr
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liposome adj10 (cholesterol adj1 hemisuccinate)	28	

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Go to Doc# Previous Page Next Page

## **WEST Search History**

Hide Items Restore Clear Cancel

DATE: Tuesday, June 29, 2004

Hide?	Set Name	<u> Query</u>	Hit Count
	DB = US	PT,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR	
	L12	liposome adj10 (cholesterol adj1 hemisuccinate)	28
	L11	liposome adj5 (cholesterol adj1 hemisuccinate)	20
	L10	L7 and dotap	5
	L9	(liposome) adj5 chems adj5 dotap\$	0
	L8	(liposome) adj5 chems adj5 dotap	0
	L7	(liposome) adj5 chems	147
	L6	(liposome) adj5 (both) adj5 positive\$ adj5 negative\$	1
	L5	liposome adj5 positive\$ adj5 negative\$	250
	L4	liposome adj5 isoelectric	5
	L3	liposome adj5 amphoteric	9
	L2	liposome adj3 amphoteric	8
	L1	liposome adj3 amphoteric\$	57

**END OF SEARCH HISTORY** 

# First Hit Fwd Refs End of Result Set

## Generate Collection : Rrint

L13: Entry 1 of 1

File: USPT

Apr 27, 1999

DOCUMENT-IDENTIFIER: US 5897873 A TITLE: Affinity associated vaccine

Brief Summary Text (25):

In particular applications <u>liposomes may comprise cholesterol hemisuccinate</u>, phosphatidylserine, phosphatidic acid, or phosphatidylglycerol as well as aminodiglyceride, glyceridecholine, stearylamine, trimethylstearylamine, dioctadecyl trimethylammonio derivatives (e.g., 1,2 bis(oleoyloxy)-3-dioctadecyl trimethylammonio propane—"DOTAP") or any bilayer forming amphiphile having a charged hydrophilic moiety.

Brief Summary Text (30):

In the practice of this method of treatment in various embodiments the <a href="liposome comprises cholesterol hemisuccinate">liposome comprises cholesterol hemisuccinate</a>, phosphatidylserine, phosphatidic acid, or phosphatidylglycerol as well as aminodiglyceride, glyceridecholine, stearylamine, trimethylstearylamine, or dioctadecyl trimethylammonio derivatives or any bilayer forming amphiphile having a charged hydrophilic moiety. Antigens can comprise HIV or a portion thereof, particularly PB1. Variously antigens are noted to be proteins, peptides, glycopeptides, or glycoproteins, polypeptides, or poly (amino acid) and will be termed, collectively, "peptide". Particularly noted as antigens are influenza or fragments thereof, herpes or fragments thereof, haemophilus B or fragments thereof, or malaria or fragments thereof, as well as isolated or bioengineered fragments of viruses, bacteria, cancer cells, humoral cells and body fluid components.

# First Hit Fwd Refs End of Result Set



L13: Entry 1 of 1

File: USPT

Apr 27, 1999

US-PAT-NO: 5897873

DOCUMENT-IDENTIFIER: US 5897873 A

TITLE: Affinity associated vaccine

DATE-ISSUED: April 27, 1999

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Popescu; Mircea

Plainsboro

ŊJ

US-CL-CURRENT: 424/450; 424/204.1, 424/206.1, 424/208.1

CLAIMS:

I claim:

- 1. A composition which comprises:
- (i) an adjuvant liposome which comprises a lipid consisting essentially of a cholesteryl hemisuccinate salt; and
- (ii) a peptide antigen in electrostatic association with the lipid

wherein the peptide antigen has an isoelectric point of at least about 8 and is associated with the external surface of the liposome.

- 2. The composition of claim 1, wherein the antigen is a viral, bacterial, protozoal or cellular antigen.
- 3. The composition of claim 2, wherein the antigen is selected from the group consisting of human immunodeficiency virus and Haemophilus influenza B antigens.
- 4. The composition of claim 3, wherein the antigen is a human immunodeficiency virus antigen.
- 5. The composition of claim 1, wherein the cholesteryl hemisuccinate salt is a tris(hydroxymethyl) aminomethane salt.
- 6. The composition of claim 1 comprising an additional adjuvant.
- 7. The composition of claim 6, wherein the additional adjuvant comprises aluminum hydroxide.

- 8. A method of enhancing the immune response of an animal to a peptide antigen which comprises administering the composition of claim 1 to the animal.
- 9. A composition which comprises:
- (i) an adjuvant liposome comprising a lipid which consists essentially of the salt form of an organic acid derivative of a sterol; and
- (ii) a peptide antigen having an isoelectric point of about 8,

wherein the peptide antigen is electrostatically associated with the external surface of the liposome.

## Generate Collection Print

L14: Entry 3 of 9

File: USPT

Mar 1, 1994

DOCUMENT-IDENTIFIER: US 5290563 A

TITLE: Method for combining a mixture of heterogeneous substances with liposomes

#### Detailed Description Text (1):

The object of the present invention is a method of the type described at the beginning in which liposomes are made up of cholesterol, a phospholipid and/or at least one ionic lipid which gives the liposome a positive or negative charge. This method is characterized in that the liposome or its constituents are combined with the mixtures of heterogeneous substances, the pH of the whole being higher or lower than the isoelectric point ip of the substances contained in the mixture, depending on whether the ionic lipid is positively or negatively charged respectively.

#### Detailed Description Text (53):

Table II, which follows, combines the results obtained in the case where the pH of the <a href="liposome-allergen mixture">liposome-allergen mixture</a> is higher than the isoelectric point (ip) of the allergens (which is often the case when following Bangham's method) and in the case where the pH is reduced, for example, with a solution of HCl O, 1N, to a final value lower than the ip of the allergens, the ionic lipid used being DCP (negative charge).

#### CLAIMS:

- 1. A method of combining protidic allergens and/or allergenic extracts selected from the group consisting of natural allergens from animal or vegetable origin, allergenic proteins and peptides, with a negatively or positively charged liposome comprised of cholesterol, a phospholipid and/or at least one ionic lipid which gives the liposome a positive or negative charge, comprising
- a) determining the isoelectric point ip of one or more of the allergenic substances to be mixed and
- b) mixing said allergenic substance or substances with said <u>liposome at a pH lower</u> than said isoelectric point when the liposome is negatively charged or at a pH higher than said isoelectric point when said liposome is positively charged.
- 2. A method according to claim 1 wherein the <u>liposome</u> is positively charged and the <u>weakest isoelectric point</u> of said substance is determined.
- 3. A method according to claim 1 wherein the <u>liposome is negatively charged and the</u> strongest isoelectric point of said substance is determined.

First Hit

## Generate Collection

L14: Entry 7 of 9

File: EPAB

Jan 30, 1991

DOCUMENT-IDENTIFIER: EP 410848 A1

TITLE: Process for combining a mixture of heterogeneous substances with liposomes.

Abstract Text (1):

In the process for combining heterogeneous substances, contained in a mixture, with liposomes, in particular allergenic substances, such as allergens and/or allergenic extracts, contained in an allergenic preparation, by adsorption at the surface of and/or incorporation in liposomes, which contain cholesterol, a phospholipid and/or at least one ionic lipid which confers a positive or negative charge on the liposome, the mixture of heterogeneous substances is brought into contact with the liposome or its constituents, the pH of the whole being above or below the isoelectric point pI of the substances contained in the mixture, depending on whether the ionic lipid is positively or negatively charged, respectively.

### **Hit List**

Clear: Generate Collection Print Fwd Refs Bkwd Refs
Generate OACS

Search Results - Record(s) 1 through 8 of 8 returned.

☐ 1. Document ID: US 5688697 A

Using default format because multiple data bases are involved.

L2: Entry 1 of 8

File: USPT

Nov 18, 1997

US-PAT-NO: 5688697

DOCUMENT-IDENTIFIER: US 5688697 A

TITLE: Stabilized microspheres and methods of preparation

DATE-ISSUED: November 18, 1997

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Malick; Adrien Granite MD Feindt; Hans H. Parkton MD Hahn; Gerald D. Severn MD

US-CL-CURRENT: 436/518; 427/2.11, 427/2.14, 427/2.23, 428/402.2, 436/524, 436/527, 436/528, 436/534, 436/829



☐ 2. Document ID: US 5635357 A

L2: Entry 2 of 8 File: USPT Jun 3, 1997

US-PAT-NO: 5635357

DOCUMENT-IDENTIFIER: US 5635357 A

TITLE: Stabilized microspheres and methods of preparation

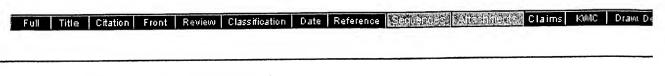
DATE-ISSUED: June 3, 1997

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Malick; Adrien Granite MD Feindt; Hans H. Parkton MD

US-CL-CURRENT:  $\underline{435}/\underline{7.1}$ ;  $\underline{424}/\underline{420}$ ,  $\underline{424}/\underline{450}$ ,  $\underline{427}/\underline{8}$ ,  $\underline{436}/\underline{528}$ ,  $\underline{436}/\underline{531}$ ,  $\underline{436}/\underline{532}$ 



☐ 3. Document ID: US 5620903 A

L2: Entry 3 of 8

File: USPT

Apr 15, 1997

US-PAT-NO: 5620903

DOCUMENT-IDENTIFIER: US 5620903 A

TITLE: Stabilized microspheres and methods of preparation

DATE-ISSUED: April 15, 1997

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Malick; Adrien Granite MD Feindt; Hans H. Parkton MD Hahn; Gerald D. Severn MD

US-CL-CURRENT:  $\underline{436}/\underline{533}$ ;  $\underline{435}/\underline{7.1}$ ,  $\underline{435}/\underline{7.2}$ ,  $\underline{435}/\underline{7.92}$ ,  $\underline{436}/\underline{518}$ ,  $\underline{436}/\underline{523}$ ,  $\underline{436}/\underline{528}$ ,  $\underline{436}/\underline{531}$ ,  $\underline{436}/\underline{534}$ ,  $\underline{436}/\underline{536}$ ,  $\underline{436}/\underline{829}$ 

## Full Title Citation Front Review Classification Date Reference Servences Patrachinierts Claims KWC Draw. De

☐ 4. Document ID: US 5593843 A

L2: Entry 4 of 8

File: USPT

Jan 14, 1997

US-PAT-NO: 5593843

DOCUMENT-IDENTIFIER: US 5593843 A

TITLE: Stabilized microspheres and methods of preparation

DATE-ISSUED: January 14, 1997

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Malick; Adrien Granite MD Feindt; Hans H. Parkton MD

US-CL-CURRENT:  $\underline{435}/\underline{7.1}$ ;  $\underline{435}/\underline{7.2}$ ,  $\underline{435}/\underline{7.9}$ ,  $\underline{435}/\underline{7.92}$ ,  $\underline{435}/\underline{7.93}$ ,  $\underline{436}/\underline{518}$ ,  $\underline{436}/\underline{523}$ ,  $\underline{436}/\underline{531}$ ,  $\underline{436}/\underline{533}$ ,  $\underline{436}/\underline{534}$ ,  $\underline{436}/\underline{536}$ ,  $\underline{436}/\underline{829}$ 

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences Attack	iniehts.	Claims	KWIC	Draw, D

☐ 5. Document ID: US 5580735 A

L2: Entry 5 of 8

File: USPT

Dec 3, 1996

Page 3 of 5

US-PAT-NO: 5580735

DOCUMENT-IDENTIFIER: US 5580735 A

TITLE: Stabilized microspheres and methods of preparation

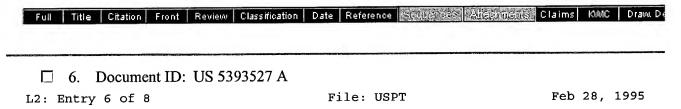
DATE-ISSUED: December 3, 1996

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Malick; Adrien Granite MD Feindt; Hans H. Parkton MD Hahn; Gerald D. Severn MD

US-CL-CURRENT:  $\frac{435}{6}$ ;  $\frac{427}{2.11}$ ,  $\frac{427}{2.14}$ ,  $\frac{427}{2.23}$ ,  $\frac{428}{402.2}$ ,  $\frac{435}{7.1}$ ,  $\frac{435}{7.5}$ ,  $\frac{436}{518}$ ,  $\frac{436}{524}$ ,  $\frac{436}{527}$ ,  $\frac{436}{528}$ ,  $\frac{436}{534}$ ,  $\frac{436}{829}$ 



US-PAT-NO: 5393527

DOCUMENT-IDENTIFIER: US 5393527 A

TITLE: Stabilized microspheres and methods of preparation

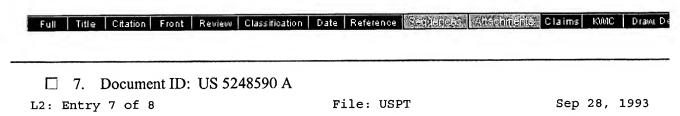
DATE-ISSUED: February 28, 1995

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Malick; Adrien Granite MD Feindt; Hans H. Parkton MD

US-CL-CURRENT: 435/7.1; 424/420, 424/450, 427/8, 436/528, 436/532



US-PAT-NO: 5248590

DOCUMENT-IDENTIFIER: US 5248590 A

\*\* See image for Certificate of Correction \*\*

TITLE: Surface modified liposomes

DATE-ISSUED: September 28, 1993

INVENTOR-INFORMATION:

Oppenheimer; Leslie

NAME CITY STATE ZIP CODE COUNTRY Rutner; Herman Hackensack NJ
Readio; Josephine D. Sparta NJ

Kinnelon

US-CL-CURRENT:  $\underline{435}/\underline{5}$ ;  $\underline{422}/\underline{56}$ ,  $\underline{422}/\underline{58}$ ,  $\underline{422}/\underline{61}$ ,  $\underline{435}/\underline{7.9}$ ,  $\underline{435}/\underline{970}$ ,  $\underline{435}/\underline{975}$ ,  $\underline{436}/\underline{528}$ ,  $\underline{436}/\underline{532}$ ,  $\underline{436}/\underline{807}$ ,  $\underline{436}/\underline{808}$ ,  $\underline{436}/\underline{829}$ 

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KMC Draw De

8. Document ID: EP 524804 A2, DE 69219685 E, CA 2073735 A, JP 05196624 A, US 5248590 A, EP 524804 A3, JP 2559185 B2, EP 524804 B1

L2: Entry 8 of 8

File: DWPI

NJ

Jan 27, 1993

DERWENT-ACC-NO: 1993-028852

DERWENT-WEEK: 199730

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TITLE: Assay reagent useful in assaying analytes and targetting therapeutic agents - comprises a liposome with surface amino gps. covalently bonded to linking gps.

INVENTOR: OPPENHEIMER, L; READIO, J D; RUTNER, H

PRIORITY-DATA: 1991US-0733937 (July 22, 1991)

PATENT-FAMILY:

PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
January 27, 1993	E	013	G01N033/58
June 19, 1997		000	G01N033/58
January 23, 1993		000	G01N033/544
August 6, 1993		011	G01N033/544
September 28, 1993		010	C12Q001/28
July 28, 1993		000	G01N033/58
December 4, 1996		012	G01N033/544
May 14, 1997	E	015	G01N033/58
	January 27, 1993 June 19, 1997 January 23, 1993 August 6, 1993 September 28, 1993 July 28, 1993 December 4, 1996	January 27, 1993 E  June 19, 1997  January 23, 1993  August 6, 1993  September 28, 1993  July 28, 1993  December 4, 1996	January 27, 1993 E 013 June 19, 1997 000 January 23, 1993 000 August 6, 1993 011 September 28, 1993 010 July 28, 1993 000 December 4, 1996 012

INT-CL (IPC): A61K 9/127; C12Q 1/28; G01N 33/543; G01N 33/544; G01N 33/547; G01N 33/58

Full	Title	Citation	Front	Review	Classification	Reference	eference Serviciones Affactificates Claims Ki					OMC Draw	
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## Generate Collection Print

L3: Entry 1 of 9

File: USPT

Oct 5, 1999

DOCUMENT-IDENTIFIER: US 5962015 A TITLE: Stabilized liposomes

Brief Summary Text (8):

Accordingly, there have been many proposals for stabilizing liposomes. Known stabilizers for liposomes include certain relatively simple amphoteric molecules having a cationic region, for example triethanolamine, a common cosmetic buffer, can be added to phospholipid starting materials during liposome preparation to prevent aggregation. Though providing some stability, triethanolamine and the like, do not provide adequate shelf-life and processing stability to enable liposomes to protect actives in a wide range of cosmetic and pharmaceutical formulations.

## **Hit List**

Clear Generate Collection Print Fwd Refs Bkwd Refs Bkwd Refs

**Search Results** - Record(s) 1 through 5 of 5 returned.

☐ 1. Document ID: US 5290563 A

Using default format because multiple data bases are involved.

L4: Entry 1 of 5

File: USPT

Mar 1, 1994

US-PAT-NO: 5290563

DOCUMENT-IDENTIFIER: US 5290563 A

TITLE: Method for combining a mixture of heterogeneous substances with liposomes

DATE-ISSUED: March 1, 1994

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY
Millet-Genin; Isabelle Plaisir FR
Puisieux; Francis Maisons Alfort FR
Thao; Tran X. Chatenay Malabry FR

Roblot-Treupel; Liliane Thiais FR

US-CL-CURRENT: 424/450; 264/4.1, 264/4.3, 424/275.1, 424/812, 436/829

Full Title Citation Front Review Classification Date Reference Sequences Attachmedis Claims KMC Draw. De

□ 2. Document ID: US 5064655 A

L4: Entry 2 of 5

File: USPT

Nov 12, 1991

US-PAT-NO: 5064655

DOCUMENT-IDENTIFIER: US 5064655 A

TITLE: Liposome gel composition and method

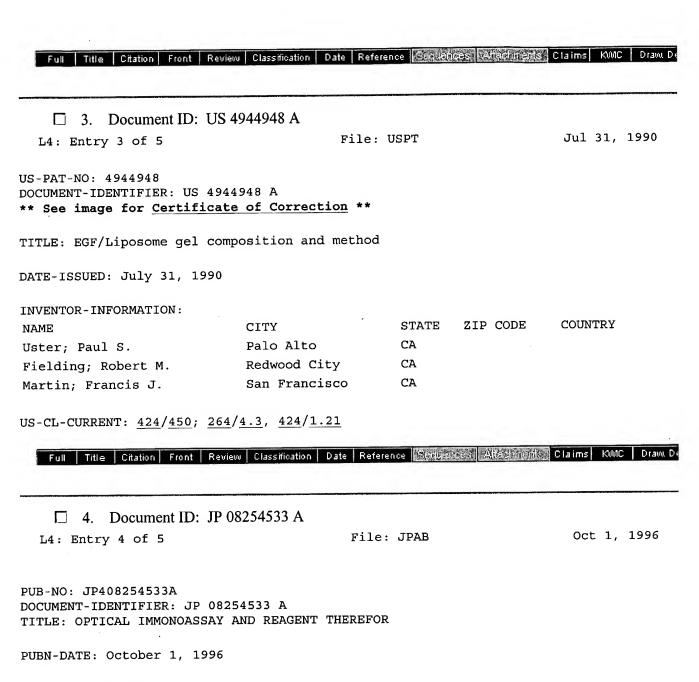
DATE-ISSUED: November 12, 1991

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Uster; Paul S. Palo Alto CA
Morano; Jacqueline K. Montain View CA
Martin; Francis J. San Francisco CA

US-CL-CURRENT: 424/450; 264/4.3, 428/402.2



INVENTOR-INFORMATION:

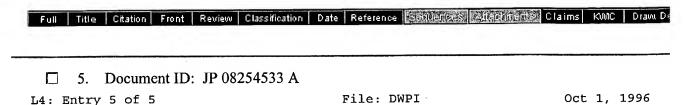
NAME

COUNTRY

NIRAZUKA, SADANOBU TANAKA, SEIJI

HAMANO, AKISHIGE

INT-CL (IPC):  $\underline{G01} \ \underline{N} \ 33/544$ ;  $\underline{G01} \ \underline{N} \ 33/577$ 



DERWENT-ACC-NO: 1996-494206

DERWENT-WEEK: 199649

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TITLE: Reagent for optical immunoassay - comprises liposome carrying monoclonal

antibodies of different isoelectric points

PRIORITY-DATA: 1995JP-0083139 (March 15, 1995)

PATENT-FAMILY:

PUB-NO

PUB-DATE

LANGUAGE

PAGES

MAIN-IPC

JP 08254533 A

October 1, 1996

006

G01N033/544

INT-CL (IPC):  $\underline{G01} \ \underline{N} \ 33/544$ ;  $\underline{G01} \ \underline{N} \ 33/577$ 

Full	Title Citation	Front	Review	Classification	Date	Reference	Secusion	S Attachi	netries.	Claims	KWIC	Draw. De	
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	Terms						Do	cuments					
	liposome adj5 isoelectric						5						

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**Previous Page** 

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Go to Doc#

## Generate Collection Print

L4: Entry 1 of 5

File: USPT

Mar 1, 1994

DOCUMENT-IDENTIFIER: US 5290563 A

TITLE: Method for combining a mixture of heterogeneous substances with liposomes

#### Detailed Description Text (53):

Table II, which follows, combines the results obtained in the case where the pH of the <a href="liposome-allergen mixture">liposome-allergen mixture</a> is higher than the isoelectric point (ip) of the allergens (which is often the case when following Bangham's method) and in the case where the pH is reduced, for example, with a solution of HCl O, 1N, to a final value lower than the ip of the allergens, the ionic lipid used being DCP (negative charge).

#### CLAIMS:

- 1. A method of combining protidic allergens and/or allergenic extracts selected from the group consisting of natural allergens from animal or vegetable origin, allergenic proteins and peptides, with a negatively or positively charged liposome comprised of cholesterol, a phospholipid and/or at least one ionic lipid which gives the liposome a positive or negative charge, comprising
- a) determining the isoelectric point ip of one or more of the allergenic substances to be mixed and
- b) mixing said allergenic substance or substances with said <u>liposome at a pH lower than said isoelectric</u> point when the <u>liposome is negatively charged or at a pH higher than said isoelectric</u> point when said liposome is positively charged.
- 2. A method according to claim 1 wherein the <u>liposome</u> is positively charged and the weakest isoelectric point of said substance is determined.
- 3. A method according to claim 1 wherein the <u>liposome</u> is negatively charged and the strongest isoelectric point of said substance is determined.